

# Annual Report 2002 of the Environmental Finance Center Network

Environmental Finance Center Network

2002 Annual Report

## New Mexico Institute of Mining and Technology EFC (New Mexico Tech)

**The New Mexico EFC was established in 1992 as the first Environmental Finance Center.**

The Environmental Finance Center serving EPA Region 6 (NM EFC) is pleased to announce its new affiliation with the New Mexico Institute of Mining and Technology (New Mexico Tech). This state university is located in Socorro, New Mexico, about one hour south of Albuquerque. The NM EFC will remain in Albuquerque at the same address and phone numbers as before. The center will maintain all of its current staff and activities and believes this change will open up additional opportunities for its clients and increase the overall support for the center.

The NM EFC is dedicated to helping state, local, and tribal governments meet environmental

infrastructure needs and regulatory compliance through state and local capacity building. Capacity building includes

enhancing  
technical,  
managerial, and  
financial  
capabilities to

achieve consistent and sustainable regulatory compliance and sustainable infrastructure.



The NM EFC assists in local capacity building by:

- Examining alternative approaches to meeting regulatory compliance or environmental infrastructure needs;
- Empowering communities to act as the “drivers” for their own projects;
- Assisting with procuring professional services
- Presenting funding alternatives;
- Acting as a bridge between federal, state, local and tribal governments;
- Presenting neutral analyses of issues or projects
- Gathering stakeholder input.

Capacity building projects include: capacity development for Region 6 states, capacity development for Tribal water systems, assistance

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to NM SRF applicants, and the Public Management and Finance Program.

In addition to capacity building, the NM EFC assists with innovative financing projects or projects that require a neutral party to facilitate or complete. Examples of this type of project include: the Clean Air Investment Fund, the Independent Analysis of the Hydroscope Technology, and the Resource Based or Unified Source Water Protection Project.

## ACCOMPLISHMENTS

### Capacity Development Activities for Region 6 States

During 2002, the EFC continued to assist the EPA Region 6 states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas with the implementation activities associated with capacity development strategies, as required under the 1996 Safe Drinking Water Act (SDWA) amendments. The NM EFC introduced a new tool to New Mexico – the Missouri ShowMe Ratemaker program. The Missouri ShowMe Ratemaker program was developed by the Missouri Department of Natural Resources and is used in stakeholder meetings, meetings with the states to discuss options for implementing the strategies, and other related activities. The NM EFC participated in the Region 4 and Region 6 annual capacity development meeting in Atlanta, GA. The NM EFC used this opportunity to meet with EPA representatives from Region 4, Region 6, and headquarters as well as representatives from each of the states. The NM EFC was able to share information between the states and answer questions at the meeting.

The NM EFC provided assistance the State of Louisiana with a revision to its business plan requirement. This effort included conducting a stakeholder meeting. In Arkansas, the NM EFC assisted in the evaluation of contractors for capacity

development assistance. In Texas, the NM EFC assisted the state in evaluating ways to implement SB 649 that requires managerial training for certain systems within the state. This effort involved coordination and facilitation of meetings with the Texas Water Development Board and the Texas Natural Resource Conservation Commission (now Texas Commission on Environmental Quality).

The NM EFC also participated in the EPA Region 1,2,3, and 5 capacity development conference and the EPA Region 7, 8, 9, and 10 capacity development conference. The NM EFC was able to share experiences in EPA Regions 4 and 6 with these other states and was able to bring experiences from the other states to Region 6.

The NM EFC also delivered rate setting training courses across the state and delivered rate setting courses individually to systems. The rate training involved the use of the ShowMe Ratemaker that was developed by the Missouri Department of Natural Resources. The first training sessions involved a wide variety of participants, including: systems, engineers, finance officials, funders, regulatory agencies, and other EFCs.

### Capacity Development for Tribal Water Systems

The NM EFC has continued to provide technical assistance services to tribal water systems to increase their capacity, increase regulatory compliance, and improve overall public health protection. These services are tailored to meet the specific needs of each Tribe. The EFC meets with EPA Region 6 on a quarterly basis to discuss activities completed during the previous quarter, to review compliance history and trends for the quarter and previous three years, to discuss high priority activities for the upcoming quarter, to discuss needs or issues at particular Tribes, and to identify training needs for the Tribes.

Under this contract, the EFC assisted the Tribes in a wide variety of ways. These activities are described below.

- Compliance Assistance: One of the major tasks of this contract is to help Tribal water systems comply with SDWA regulations. This activity involves training operators on the requirements of regulations, particularly the Total Coliform Rule (TCR). The EFC held several trainings during 2002 to make Tribal operators aware of their responsibilities under this rule. Almost every Tribe sent a representative to at least one of the trainings. The EPA is able to document increased TCR compliance following the trainings. The EFC also assists Tribes via phone, e-mail, or through site visits with any compliance issues. The EFC assists with the completion of the required Consumer Confidence Reports, compliance with lead/copper rule, compliance with chemical/radiological monitoring, and nitrate sampling requirements. Over the time the EFC has been working with Tribal water systems, overall compliance has greatly improved.
- Groundwater Comprehensive Performance Evaluations (CPEs): During the previous year, the EFC worked with EPA to develop protocols for groundwater Comprehensive Performance Evaluations (CPEs) and completed some CPEs as a training tool. During 2002, the EFC completed two more CPEs as the lead entity. The EFCs are developing this approach to be a regular part of the service we will provide.
- Multiple Barrier Approach (MBA) Training: The EFCs are piloting a program to provide operators with a “big picture” overview of water systems and the sanitary risks that may exist within the systems. Normally, the risks are identified during routine sanitary surveys;

however, the sanitary survey reports do not always indicate the reason for the sanitary risk, why it should be corrected, and how it impacts public health. The EFC has created an MBA training program, based off of sanitary survey training, that is geared to operators and the reasons why different risks are identified. It is hoped that this training will be paired with IHS sanitary surveys and EFC Multiple Barrier Evaluations (MBEs) to allow the tribes to make better use of the information received and to want to make corrections in their systems.

- Laboratory Analyses and Assistance: The EFC manages contracts with four certified labs across New Mexico to pay for the analysis of compliance samples. This activity has virtually eliminated monitoring violations in the State of New Mexico.
- Compliance Tracking: The EFC maintains a database to track compliance with SDWA regulations, particularly the TCR. The EFC follows up with the tribes on all hits and maintains a database of causes of hits. For example, the EFC will determine if the hit was most likely caused by inadequate disinfection, broken mains, poor sampling location or technique, source contamination, or other factors. The EFC also works with EPA Region 6 to determine if the database of violations maintained by the EFC matches with the violations recorded by Region 6. If the violations lists are not equivalent, a conference call is held to address the discrepancies. This process has prevented unwarranted violation notices from going out to the Tribes.

New initiatives under this program next year will include Performance Based Training (PBT) as a follow-up to CPEs, completion of MBEs and coordination of the MBE program

with IHS' sanitary survey program, general drinking water regulation training, and assistance with one Tribe that has multiple disinfection needs and related compliance issues.

#### Assistance to New Mexico SRF Applicants

The NM EFC continued to work with the New Mexico Finance Authority (NMFA) in providing assistance to small public drinking water systems interested in applying for funding from the State Revolving Loan Fund (SRF). This assistance ranged from providing general information on the loan application process to working extensively with water systems in developing the engineering and environmental documents needed for the application. In addition, the EFC developed Environmental Assessment documents for several water systems classified as disadvantaged and who were eligible for engineering/planning assistance from the NMFA.

At the request of NMFA, the EFC prepared a Capacity Development Report for NMFA that identified all of the capacity development activities currently being carried out in New Mexico by various state agencies and other entities. The report also included a discussion of additional activities that could be undertaken to increase capacity within the state and an approximation of funding that would be required.

During 2002, the EFC worked extensively with the Local Government Infrastructure Group in developing a uniform application acceptable to all of the infrastructure funding agencies. A draft application was developed and circulated to all participants for final approval.

In fall of 2002, the contract with NMFA was transferred from UNM to NM Tech to continue this work during the next year.

#### Resource-Based or Unified Source Water Protection Project

The NM EFC continues to serve as the lead EFC for this project, and is working with the EFCs in Maryland, North Carolina, Boise State, and New York, to develop resource-based or unified source water protection plans for clusters of communities in 8 different states. The eight states in which the EFCs are working include: New York, Maryland, West Virginia, North Carolina, Texas, Colorado, Idaho, and Oregon.

The NM EFC is conducting the projects in Texas and Colorado. The Texas project includes water systems around Lake Meredith. This lake is operated by the Canadian River Municipal Water Authority (CRMWA) and supplies water to Amarillo, Lubbock, and nine other communities. The major concerns for source water protection on this project include: oil drilling and exploration, ranching, recreational uses of the lake, and septic systems around the lake. The NM EFC held several meetings with this group and determined that one of the biggest needs was an accurate inventory of the potential sources of contamination (PSOCs) around the lake. To gather this data, the NM EFC held a training class for groups of volunteers on the use of Global Positioning Technology (GPS) and identification of PSOCs.

The volunteers then spent a week with the NM EFC going around the lake and identifying locations of PSOCs. The NM EFC developed a map of the PSOCs and presented this information to the Source Water Protection group. The NM EFC also developed a methodology, based on an approach in Colorado, to identify the threat posed by the PSOCs. This information was presented to the group to allow them to decide which PSOCs were the most critical for the Lake. The group will then be working on which activities they wish to undertake to protect the Lake from these sources.

The project in Colorado focuses on the systems that are pulling water out of the Boulder Feeder Canal. This open canal supplies water to the City of Boulder and a few smaller towns nearby. It is exposed to runoff from agricultural and residential areas as well as recreational impacts. The NM EFC has been working with the City of Boulder to develop a coalition of water systems who take water from Carter Lake. This coalition would also include the Northern Colorado Conservancy District who maintains the lakes and canals that supply the water. Once the coalition is formed, the NM EFC will undertake the next steps to develop a protection plan.

#### Tribal Operator Certification Institute

The NM EFC completed all of the requirements of the development of an operator certification institute for Region 6 Tribes, including completing a set of operational guidelines. These guidelines were developed with tribal input and were approved by the Tribal Utility Advisory Board (TUAB) in late 2002. The guidelines were subsequently submitted to EPA Region 6 for approval. Using the approved guidelines, the NM EFC gave the first Operator Certification Test in January of 2003.

The Tribal Operator Certification Institute program includes several activities: 1) delivering operator certification testing using the Association of Boards of Certification (ABC) test, 2) giving tribal operators certificates after passing the test, 3) delivering pathway training (on-site year-long training in operations to get less experienced operators prepared for testing), 4) delivering gap trainings (trainings that are necessary, but not yet delivered by any of the current assistance providers), and 5) issuance of reciprocity certificates. The NM EFC intends for this multi-pronged approach to result in an increased number of tribes whose water systems are operated by

certified operators. The goal is to have 80 percent of the tribal water systems run by certified operators.

In 2002, the NM EFC began a six month pilot of the Tribal Operator Certification program including beginning Pathways training, delivering a practice test to simulate the conditions of the real Op Cert test, and providing some gap trainings. After completion of the six month pilot period, the NM EFC anticipates full operation of the program to begin in 2003.

#### Clean Air Investment Fund

The NM EFC teamed with EFC9 to determine the feasibility of setting up a Clean Air Investment Fund for the Paso del Norte airshed. This area includes the cities of El Paso, Texas and Juarez, Mexico, as well as Dona Ana County, New Mexico. This area has been non-attainment for three pollutants and experiences the added difficulties that result from the varying regulations on the U.S. and Mexican sides of the Border. A local bi-national group – The Joint Advisory Committee for Paso del Norte – was seeking various options to address the air pollution issues that occur in the region. One option that was suggested was the use of EPA's Economic Incentive Program (EIP) guidance to implement a Clean Air Investment Fund (CAIF.)

A CAIF is a type of EIP that allows sources facing control costs that exceed a designated cost-per-ton benchmark to pay into the fund in lieu of installing the required controls. While sources participating in a CAIF have not installed the required controls, they are otherwise obligated to meet all other regulatory requirements that apply to them. The fees in the fund are managed by a separate entity. The fund manager may be a regulatory agency or a third party. The fund manager uses the pooled payments collected by the

fund to seek equivalent and presumably less costly emission reductions. (Economic Incentive Program Guidance, Environmental Protection Agency, January 2001).

The EFC team prepared a final procedures document for implementation of the CAIF for the area in December 2002. The procedures document specified the fund manager, the oversight framework, stakeholder involvement, compliance with EIP guidance, and potential uses for the fund. The work of the team revealed that there was not a strong need for the fund to act as a regulatory relief valve (i.e., to provide a lower-cost compliance mechanism.). Most companies in the area were not facing excessively high compliance costs at this time. However, the team pointed out other ways the fund could be used to reduce emissions in the area. There appeared to be enough positive reasons to want to create a fund that it could be set up anyway, in lieu of the regulatory need. The next steps are to set up the fund as a pilot project if the Joint Advisory Committee and EPA feel this is a needed activity.

#### Independent Analysis of Hydroscope Technology for City of Albuquerque

For the past few years, the NM EFC has been working with the City of Albuquerque on a project to conduct an independent analysis of the cost-effectiveness of using a particular non-destructive pipe analysis technique. The technology can detect certain types of problems in ductile iron and cast iron pipe likely to fail. This technique relies on a tool inserted into pipe that sends out electromagnetic currents and a proprietary software package that analyzes the collected information. A judgment is made by the software regarding whether the pipe is likely to have a future leak.

The City of Albuquerque desired to know whether it would be cost effective for them to use this

technique within the context of their overall pipe repair and replacement program. Considerations include the fact that only a portion of the City's pipes are cast iron and ductile iron; the types of leaks the City routinely experiences may or may not be detectable with the technology; the technology's ability to accurately and reliably predict breaks based on the condition data; repairing the pipes with this technology will provide a different pipe life than replacing the pipes; pipe repairs in this manner do not allow for replacement of pipe appurtenances; pipe inspection may prevent breakages that can cause considerable damage to facilities near the break and tremendous water loss; and, anticipating breaks would allow the City to be proactive with its repair program.

The EFC completed Phase I of this project in 2002. This phase consisted of searching the City's files for all main line repairs that occurred in the five year period from FY 95 to FY 99. The repair records were examined to determine which types of pipes were breaking, why they may have been breaking, the cost to repair a break, the comparison between City of Albuquerque experiences and other cities' experiences, and a summary of the overall pipe repair and replacement program.

The NM EFC will be completing Phase II of the project in 2003. This phase consists of observing the use of the pipe examination tool and reviewing the cost information provided as a result of the pipe evaluations. During 2002, the project was expanded to see if the tool could be used on steel pipe. The NM EFC went to watch the procedure used on the steel lines and will include the potential to use this product on steel in the final report.

#### Public Management and Finance Program (PMFP)

The UNMEFC has continued to work with the Syracuse EFC on the Public Management and

Finance Program. The NM EFC participated in a session in Minnowbrook, New York in April 2002 to help communities understand the funding process and how to holistically include infrastructure funding, operation, and maintenance into all of the activities that communities need to do. This participation allows the NM EFC to try new training techniques, learn other approaches to training, and to gain insight into the needs and requirements of small, local governments. The NM EFC anticipates that its participation in this program will allow it to expand this program into Region 6.

The PMFP sessions are designed to focus on a variety of areas: including the range of services accessible to communities, the gaps in the delivery of technical assistance, and the disconnect between public policies and the financial and management capacity communities have. The PMFP offers hands-on technical assistance to rural communities through the development of teams of technical assistance providers.

Specifically at the April 2002 event, the NM EFC presented a workshop on rate setting using the ShowMe Ratemaker program. As part of the program, the NM EFC used real data from one of the New York communities to demonstrate the model. As follow-up, the NM EFC assisted one of the other assistance providers in completing the rate for this community.

In addition, the NM EFC helped with an additional PMFP event "long distance." Circumstances prevented the NM EFC from attending the actual event, but the NM EFC helped to develop a rate setting session for the program. The NM EFC intends to continue involvement with this program.

The NM EFC will initiate some preliminary PMFP activities during 2003 and hopes to be able to conduct PMFP events in 2004.

### New Mexico Resource Geographic Information System

The Resource Geographic Information System (RGIS) Program is long-term program that has been at the EFC since 1996. It was established by the New Mexico state legislature in 1992 to assist state and local governments with developing and implementing GIS programs. RGIS also supports the goals of the New Mexico Information Technology Council and its associated Geographic Information System Advisory Council. Three public service and research units comprise the RGIS Team including the EFC Director, representing the New Mexico Engineering Research Institute, the Earth Data Analysis Center, and the Bureau of Business and Economic Research.

RGIS facilitates the use of GIS in New Mexico in three ways: mapping, communicating, and educating. First, it provides counties and municipalities with public maps in a format appropriate for the most commonly used GIS software. Second, it assists state and local governments with interactive communication and cooperation in the use of GIS. Third, it educates public organizations about the advantages of GIS and trains them in its use. Thus, RGIS promotes statewide-use of GIS for planning and spatial analysis of current and historical trends throughout the state. For more information refer to the RGIS web page at <http://rgis.unm.edu:8080>.

### ESRI-Certified ArcView Training Instruction and Trimble GPS Training

Through the RGIS program and other resources, the EFC provides instructors for ESRI-Certified ArcView Training and Trimble-Certified GPS Training. The Introduction to ArcView GIS course provides instruction in the basic skills

needed to use the software's display editing, analysis, and presentation mapping functions. Classes are typically offered quarterly. The GPS Training provides instruction on how to use Trimble GPS equipment, how to download the data, and how to link the GPS data to GIS programs.

### NEW INITIATIVES FOR 2003

The new initiatives for the NM EFC are highlighted below. These initiatives build upon the work efforts of the NM EFC for the past several years.

#### Comprehensive Performance Evaluations (CPE) Performance Based Training

The NM EFC has been piloting the groundwater Comprehensive Performance Evaluations (CPEs) in Region 6. This process identifies optimization goals that systems are not yet meeting and factors for why these systems are not meeting the goals. The process stops short of recommending specific changes for systems or how to make changes. The next step of the process is Comprehensive Technical Assistance or CTA. This part of the process is intended to give systems the tools to allow them to make process control decisions and adjustments and to ultimately achieve a fully optimized system. One method of delivering CTA is to provide performance based training to multiple systems. The NM EFC, in conjunction with Process Applications, Inc. and EPA Region 6 will be piloting this type of CTA on tribal water systems in EPA Region 6 during 2003.

#### Capacity Development Continuation

The NM EFC is continuing to work with states on implementation and evaluation of capacity development strategies. This work will involve asset management and how this activity may

provide another entrée into systems to work on capacity development in general. In addition, the NM EFC anticipates conducting stakeholder meetings in the states in Region 6.

#### Capacity Development Activities for the Tribes

As a continuation of the capacity development assistance work for the tribes, the NM EFC will continue to work with the tribes to increase their technical, managerial, and financial capabilities to operate their water systems. These efforts will include one-on-one assistance, group training, a web site, sampling and analysis assistance, and several other activities. The NM EFC is also investigating a new activity to work with IHS on sanitary surveys and public education.

#### Compliance with the Arsenic Standard

The EPA issued its final Arsenic standard which lowered the Maximum Contaminant Level (MCL) from 50 micrograms per liter to 10 micrograms per liter. Arsenic concentrations vary tremendously from state to state and region to region within a state. Western states, such as New Mexico, that rely heavily on groundwater and that have had past volcanic activity are severely impacted by this standard. The NM EFC continues its work with the Region 6 states and tribes to help address compliance with this standard.

#### Clean Air Investment Fund Pilot Project

The project that the NM EFC and California EFC were working to develop the procedures for developing and implementing a CAIF is completed. The next step in the project is to implement a CAIF pilot project to see if the fund



will ultimately meet the needs of the Paso del Norte airshed.

#### Bureau of Land Management

The NM EFC has continued its discussions with the Bureau of Land Management in New Mexico to provide assistance to BLM in various ways, including: GIS and GPS training and assistance, community interactions, facilitation of meetings, engineering and environmental studies. The NM EFC anticipates this work will begin in 2003.

#### Rate Setting Training

The NM EFC intends to provide rate setting training throughout New Mexico in conjunction with the seven Councils of Government in the state. This effort is intended to educate both the systems and the COG members about rate setting, and if possible, will lay the groundwork for the expansion of the PMFP project into New Mexico.

#### Public Management Finance Program

The NM EFC hopes to be able to expand the PMFP concept into New Mexico. Thus far, the program has only assisted New York communities, but the desire is to expand the activity to other states. Funding permitting, the program will be expanded in New Mexico.

#### Water Conservation

The NM EFC will be investigating the opportunity to assist the State Engineer and the NM Environment Department with water conservation activities.

## EFC NETWORK COLLABORATIONS

The NM EFC has collaborated with other EFCs this past year on a variety of projects. Those collaborations are listed below.

Project	EFCs Included in Collaboration
Public Management Financing Program	Syracuse EFC (lead), EFC9, EFC@UNC, Maine EFC, UNM EFC
Clean Air Investment Fund	UNM EFC (lead) and EFC9
Resource Based Source Water Protection	UNM EFC (lead), Syracuse EFC, Maryland, Boise State EFC, and EFC @ UNC
Rate Setting	Syracuse EFC, Maryland EFC

## CONFERENCES

Name of Conference	Date and Location	EFC Involvement
Environmental Financial Advisory Board Meeting	March 5 – 6, 2002 Washington, D.C.	Participated in Board Meeting
Environmental Finance Center Network Directors Meeting	March 6 – 7, 2002 Washington, D.C.	Participated in Meeting
EPA Regions 4 and 6 Capacity Development Conference	April 2 – 4, 2002 Dallas, TX	Participated in Meeting
EPA Arsenic Treatment Training	April 15 - 16, 2002 Albuquerque, NM	Participated in Meeting
Utility Management Institute NAD Bank	April 22, 23, 24, 2002 San Antonio, TX	Participated in Meeting
EPA Regions 7,8,9 and 10 Capacity Development Conference	June 11 - 13, 2002 Seattle, WA	EFC provided presentation and facilitation
Regional Water Planning Meeting	July 31, 2002 Albuquerque, NM	Delivered presentation
EFC Network Directors Meeting	August 7, 8, 9, 2002 Louisville, KY	EFC Participated
One Stop Shops for Funding Two Days of Workshops	August 8, 9, 2002 Albuquerque & Roswell, NM	EFC organized, sponsored, and participated
Association of State Drinking Water Administrators Annual Conference	October 31 – November 2, 2002 Salt Lake City, UT	Delivered presentation
EPA Regions 1,2,3,and 5 Capacity Development Conference	October 29 – 30, 2002 Chicago, IL	EFC Presentation and facilitation

New Mexico Infrastructure Financing Conference	October 29 – 31, 2002 Las Cruces, NM	EFC Workshop
Council of Infrastructure Financing Agencies Annual Conference	November 18 -19, 2002 Phoenix, AZ	EFC Presentation
Albuquerque Area IHS, Office of Environmental Health & Engineering, 2001 Annual Workshop	May 8-11, 2001 Las Cruces, NM	Participated in meeting